REMARKS

New claim 19 has been added. Claims 1-5 and 9-19 are currently pending in the application.

On page 2 of the Office Action, claims 1, 3-9, 11-14, and 16-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,038,062 (Kosaka).

Kosaka is directed to an optical amplifier. According to Kosaka, the optical amplifier can control individual wavelength outputs without affecting signal transmission even when the number of signal wavelengths subject to multiplexing changes and an optical transmission system using the optical amplifier.

Applicants respectfully submit that independent claims 1, 9, and 14 are patentable over the reference, as Kosaka fails to disclose, "a control unit controlling the optical amplifying unit based on the light power measured by the specific wavelength measuring unit and the total power measuring unit," as recited in claim 1, for example.

On page 3 of the Office Action, the Examiner alleged that Kosaka discloses, "a control unit (#33 and #29) controlling the optical amplifying units based on the light power measured by the specific wavelength measuring units and the total power measuring units."

Applicants respectfully submit that in contrast to the present invention, the controller 29 of Kosaka simply feed-back controls the drive current of the pump laser 21, thereby allowing the input monitor signals to become constant. Therefore, Kosaka's controller 29 does not control an amplifying unit. Rather, the controller 29 simply controls *drive current*. *See* Kosaka, column 14, lines 36-40. *See also* Kosaka, FIG. 2.

Moreover, Kosaka clearly indicates that the controller 29 controls the current such that a light output of the probe light beam is kept *constant*. Therefore, in contrast to the present invention, Kosaka's control is not based on light power measured by a specific wavelength measuring unit and total power measuring units as in the present invention. Rather, Kosaka's control is simply maintained at a constant, and is therefore, not based on the two above-identified factors in the present invention.

Moreover, according to Kosaka, a difference between the light input level of the probe light beam λ p and that of each of the signal light beams λ 1, λ2, λ3 and λ4 exists. Despite the probe light beam λ p being controlled to +10 dBm, there is a possibility that signal light beam outputs are so controlled as to deviate from +10 dBm. *See* Kosaka, column 10, lines 59-64.

Kosaka further describes that "even when one signal light beam λ decreases or stops, other signal light beams are not affected, thereby so as to be controlled to the constant level" (col. 11, lines 7-10). It is known, however, that an erbium added optical fiber 22 amplifies a signal light beam adjacent a particular signal light beam. If the particular signal light beam stops, the level of the signal light beam adjacent to the stopped signal light beam will be reduced. Accordingly, the system of Kosaka, which only measures the probe light beam, cannot detect the decrease in the level of signal light beams to control the signal light beams as accurately as the optical amplifying apparatus of claim 1 does.

In light of the foregoing, Applicants respectfully submit that independent claims 1, 9, and 14 are patentable over the reference. As dependent claims 2-5, 10-13, and 15-18 depend from independent claims 1, 9, and 14, respectively, the dependent claims are patentable over the references for at least the reasons presented for the independent claims.

On page 3 of the Office Action, claims 2, 10, and 15 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Kosaka in view of U.S. Patent No. 6,008,935 (Fujita).

Applicants respectfully submit that claims 2, 10, and 15, which depend from independent claims 1, 9, and 14, respectively, are patentable over the cited combination of references, as the combination fails to disclose or suggest, "a control unit (#33 and #29) controlling the optical amplifying units based on the light power measured by the specific wavelength measuring units and the total power measuring units," as recited in the independent claims from which the dependent claims depend. As previously submitted, Kosaka fails to disclose the above-identified feature of the present invention. Applicants further submit that the reference does not suggest the feature, as the reference specifically indicates that the control is maintained at a constant.

As Fujita's "control circuit" controls a gain of an optical amplifier unit based on the signal light level, Fujita does not control an optical amplifying unit based on light power measured by specific wavelength measuring units and total power measuring units as in the present invention. *See* Fujita, column 7, lines 10-13. *See also* Fujita, Abstract. Therefore, Fujita does not cure the deficiencies of Kosaka.

In light of the foregoing, claims 2, 10, and 15, which depend from independent claims 1, 9, and 14, respectively, are patentable over the cited combination of references.

As new claim 19 recites language similar to that of the other independent claims, new claim 19 is patentable over the references for at least the reasons presented for the other independent claims.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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